

**IN THE CLAIMS:**

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~strikethrough~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

Please AMEND claims 1, 10, 40 and 41 and CANCEL claim 39 without prejudice or disclaimer of the subject matter recited therein, in accordance with the following:

1. **(Currently Amended)** A positive active material composition for a rechargeable lithium battery, comprising:

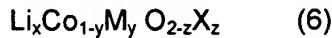
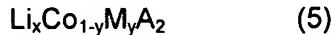
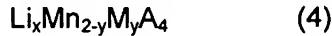
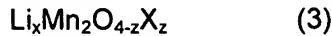
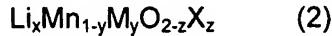
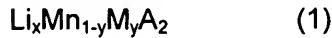
a positive active material comprising at least one lithiated compound; and

at least one amorphous additive compound selected from the group consisting of a thermal-absorbent element-included hydroxide, a thermal-absorbent element-included oxyhydroxide, a thermal-absorbent element-included oxycarbonate, and a thermal-absorbent element-included hydroxycarbonate,

wherein said at least one amorphous additive compound comprises an amount at or between 0.1 weight % and ~~1 weight %~~0.3 weight % based on the weight of the positive active material composition and

wherein the thermal-absorbent element is an element selected from the group consisting of Mg, Al, Co, K, Na, Ca, Si, Ti, Sn, V, Ge, Ga, As, and Zr, and

wherein the at least one lithiated compound is a compound selected from the group consisting of compounds represented by the formulas 1 to 13:



- $\text{Li}_x\text{Ni}_{1-y}\text{M}_y\text{O}_{2-z}\text{X}_z$  (8)  
 $\text{Li}_x\text{Ni}_{1-y}\text{Co}_y\text{O}_{2-z}\text{X}_z$  (9)  
 $\text{Li}_x\text{Ni}_{1-y-z}\text{Co}_y\text{M}_z\text{A}_\alpha$  (10)  
 $\text{Li}_x\text{Ni}_{1-y-z}\text{Co}_y\text{M}_z\text{O}_{2-\alpha}\text{X}_\alpha$  (11)  
 $\text{Li}_x\text{Ni}_{1-y-z}\text{Mn}_y\text{M}_z\text{A}_\alpha$  (12)  
 $\text{Li}_x\text{Ni}_{1-y-z}\text{Mn}_y\text{M}_z\text{O}_{2-\alpha}\text{X}_\alpha$  (13)

wherein,  $0.95 \leq x \leq 1.1$ ,  $0 \leq y \leq 0.5$ ,  $0 \leq z \leq 0.5$ ,  $0 \leq \alpha \leq 2$ , M is one element selected from the group consisting of Al, Ni, Co, Mn, Cr, Fe, Mg, Sr, V, and rare earth elements, A is selected from the group consisting of O, F, S, and P, and X is selected from the group consisting of F, S, and P, and

wherein said additive compound is prepared by drying a liquid comprising the thermal-absorbent element or the thermal-absorbent element-included compound at a temperature ranging from at or between room temperature and 200°C for at or between 1 and 24 hours.

2-9. (Cancelled)

10. (Currently Amended) A positive active material composition for a rechargeable lithium battery comprising:

a positive active material comprising at least one lithiated compound; and  
at least one additive compound selected from the group consisting of a thermal-absorbent element-included hydroxide, a thermal-absorbent element-included oxyhydroxide, a thermal-absorbent element-included oxycarbonate, and a thermal-absorbent element-included hydroxycarbonate, wherein the thermal-absorbent element is one of amorphous Al and crystalline B, and wherein said at least one additive compound comprises an amount at or between 0.1 weight % and 0.3 weight % based on the weight of the positive active material composition, and

wherein the at least one lithiated compound is a compound selected from the group consisting of compounds represented by the formulas 1 to 13:

- $\text{Li}_x\text{Mn}_{1-y}\text{M}_y\text{A}_2$  (1)  
 $\text{Li}_x\text{Mn}_{1-y}\text{M}_y\text{O}_{2-z}\text{X}_z$  (2)  
 $\text{Li}_x\text{Mn}_2\text{O}_{4-z}\text{X}_z$  (3)  
 $\text{Li}_x\text{Mn}_{2-y}\text{M}_y\text{A}_4$  (4)

$\text{Li}_x\text{Co}_{1-y}\text{M}_y\text{A}_2$  (5)

$\text{Li}_x\text{Co}_{1-y}\text{M}_y\text{O}_{2-z}\text{X}_z$  (6)

$\text{Li}_x\text{Ni}_{1-y}\text{M}_y\text{A}_2$  (7)

$\text{Li}_x\text{Ni}_{1-y}\text{M}_y\text{O}_{2-z}\text{X}_z$  (8)

$\text{Li}_x\text{Ni}_{1-y}\text{Co}_y\text{O}_{2-z}\text{X}_z$  (9)

$\text{Li}_x\text{Ni}_{1-y-z}\text{Co}_y\text{M}_z\text{A}_a$  (10)

$\text{Li}_x\text{Ni}_{1-y-z}\text{Co}_y\text{M}_z\text{O}_{2-a}\text{X}_a$  (11)

$\text{Li}_x\text{Ni}_{1-y-z}\text{Mn}_y\text{M}_z\text{A}_a$  (12)

$\text{Li}_x\text{Ni}_{1-y-z}\text{Mn}_y\text{M}_z\text{O}_{2-a}\text{X}_a$  (13)

wherein,

$0.95 \leq x \leq 1.1$ ,  $0 \leq y \leq 0.5$ ,  $0 \leq z \leq 0.5$ ,  $0 \leq a \leq 2$ ,

M is one element selected from the group consisting of Al, Ni, Co, Mn, Cr, Fe, Mg, Sr, V, and rare earth elements,

A is selected from the group consisting of O, F, S, and P, and

X is selected from the group consisting of F, S, and P, and

wherein said additive compound is prepared by drying a liquid comprising a thermal-absorbent element or a thermal-absorbent element-included compound at a temperature at or between room temperature and 200°C for at or between 1 and 24 hours.

11-14. (Cancelled)

15. (Withdrawn) The positive active material composition of claim 1, wherein: the at least one lithiated compound of the positive active material comprises a lithium-cobalt based compound; and

the at least one additive compound comprises an Al-included hydroxide.

16. (Withdrawn) The positive active material composition according to claim 15, wherein said additive compound comprises an amount at or between 0.1 weight % and 1 weight % based on the weight of the positive active material composition.

17. (Withdrawn) The positive active material composition according to claim 15, wherein said additive compound is prepared by drying a liquid comprising a thermal-absorbent

element or a thermal-absorbent element-included compound at a temperature at or between room temperature and 200°C for at or between 1 and 24 hours.

18. (Withdrawn) The positive active material composition according to claim 15, wherein said additive compound is amorphous.

19. (Withdrawn) The positive active material composition of claim 1, wherein:  
the at least one lithiated compound of the positive active material comprises a lithium-cobalt based compound; and  
the at least one additive compound comprises a B-included hydroxide.

20. (Withdrawn) The positive active material composition according to claim 19, wherein said additive compound comprises an amount at or between 0.1 weight % and 1 weight % based on the weight of the positive active material composition.

21. (Withdrawn) The positive active material composition according to claim 19, wherein said additive compound is prepared by drying a liquid comprising a thermal-absorbent element or a thermal-absorbent element-included compound at a temperature at or between room temperature and 200°C for at or between 1 and 24 hours.

22. (Withdrawn) The positive active material composition according to claim 18, wherein the additive compound is crystalline.

23. (Withdrawn) The positive active material composition of claim 1, further comprising another additive compound selected from the group consisting of the thermal-absorbent element-included hydroxide, the thermal-absorbent element-included oxyhydroxide, the thermal-absorbent element-included oxycarbonate, and the thermal-absorbent element-included hydroxycarbonate.

24-31. (Cancelled)

32. (Withdrawn) The positive active material composition of claim 10, further

comprising another additive compound selected from the group consisting of the thermal-absorbent element-included hydroxide, the thermal-absorbent element-included oxyhydroxide, the thermal-absorbent element-included oxycarbonate, and the thermal-absorbent element-included hydroxycarbonate.

33. **(Cancelled)**

34. **(Withdrawn)** The positive active material composition of claim 16, wherein the amount is at or between 0.1 weight % and 0.5 weight% based on the weight of the positive active material composition.

35. **(Withdrawn)** The positive active material composition of claim 20, wherein the amount is at or between 0.1 weight % and 0.5 weight% based on the weight of the positive active material composition.

36. **(Cancelled)**

37. **(Cancelled)**

38. **(Previously Presented)** The positive active material composition according to claim 1, wherein the positive active material composition is formed by combining a powder containing the positive active material with a powder containing the at least one additive compound in a solvent to form a positive active material slurry to be coated on a current collector of an electrode of the lithium battery.

39. **(Cancelled)**

40. **(Currently Amended)** A positive active material composition for a rechargeable lithium battery comprising:  
a positive active material comprising at least one lithiated compound; and  
an additive compound selected from the group consisting of a thermal-absorbent element-included hydroxide, wherein the thermal-absorbent element included hydroxide is an

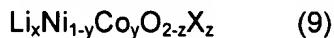
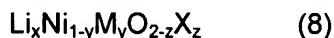
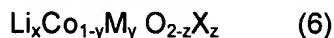
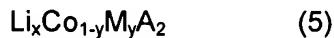
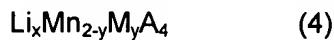
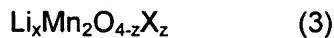
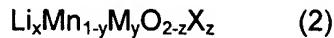
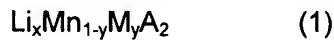
amorphous Al-included hydroxide, and wherein said thermal-absorbent element-included hydroxide comprises an amount at or between 0.1 weight % and 0.3 weight % ~~1-weight %~~-based on the weight of the positive active material composition, and

wherein said additive compound is prepared by drying a liquid comprising the thermal-absorbent element or the thermal-absorbent element-included compound at a temperature ranging from at or between room temperature and 200°C for at or between 1 and 24 hours.

**41. (Currently Amended)** A positive active material composition for a rechargeable lithium battery comprising:

a positive active material comprising at least one lithiated compound; and  
an additive compound selected from the group consisting of a thermal-absorbent element-included hydroxide, wherein the thermal-absorbent element included hydroxide is a crystalline B-included hydroxide, and wherein said thermal-absorbent element-included hydroxide comprises an amount at or between 0.1 weight % and 0.3 weight % ~~1-weight %~~-based on the weight of the positive active material composition, and

wherein the at least one lithiated compound is a compound selected from the group consisting of compounds represented by the formulas 1 to 13:



wherein,

$$0.95 \leq x \leq 1.1, 0 \leq y \leq 0.5, 0 \leq z \leq 0.5, 0 \leq \alpha \leq 2,$$

M is one element selected from the group consisting of Al, Ni, Co, Mn, Cr, Fe, Mg, Sr, V, and rare earth elements,

A is selected from the group consisting of O, F, S, and P, and

X is selected from the group consisting of F, S, and P

wherein said additive compound is prepared by drying a liquid comprising a thermal-absorbent element or a thermal-absorbent element-included compound at a temperature at or between room temperature and 200°C for at or between 1 and 24 hours.